

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1 and 2 (Canceled).

3. (Currently Amended) ~~The method of claim 1, further including~~ A method of operating a track-type machine having a drive wheel and an idler, the method comprising:

operating the drive wheel to advance a drive track around the drive wheel and the idler thereby moving the track-type machine;

determining a direction of operation of the drive wheel;

sensing a pressure of fluid being used to operate the drive wheel, wherein said determining a force includes determining the force based on;

determining a force to be applied to the idler based on the determined direction of operation of the drive wheel and, depending on the determined direction of operation, the sensed pressure of fluid being used to operate the drive wheel; and

applying the force to the idler.

Claims 4 and 5 (Canceled).

6. (Currently Amended) ~~The method of claim [[1]] 3, further including sensing a pressure of fluid being used to operate the drive wheel, and wherein said determining a force includes selecting a recoil curve from a plurality of recoil curves based on the sensed pressure of fluid being used to operate the drive wheel, sensing a position of the idler, and selecting the force to be applied based on a point on the~~

selected recoil curve that corresponds to the sensed position of the idler on the selected recoil curve.

7. (Original) The method of claim 6, wherein the direction of operation is in a direction from the idler toward the drive wheel.

8. (Currently Amended) The method of claim ~~[[1]]~~ 3, wherein said applying the force includes operating a valve assembly to control fluid pressure within an actuator associated with the idler.

9. (Currently Amended) The method of claim ~~[[1]]~~ 3, wherein said determining a force includes determining a first force when the drive wheel is operated in a direction from the drive wheel toward the idler and determining a second force differing from the first force when the drive wheel is operated in a direction from the idler toward the drive wheel.

Claims 10 and 11 (Canceled).

12. (Currently Amended) ~~The work machine of claim 10, further including~~ A work machine, comprising:

a source of pressurized fluid;

a fluid reservoir;

a drive track;

an idler;

a drive wheel, the drive wheel being operable to advance the drive track

around the drive wheel and the idler;

an actuator mechanically coupled to the idler, the actuator being operable to increase and decrease a force being applied to the idler;

a valve assembly operable to control fluid flow from the source of pressurized fluid to the actuator and from the actuator to the fluid reservoir;

a pressure sensor configured to sense the pressure of fluid being directed from the source of pressurized fluid to the drive wheel; and

a controller configured to operate the valve assembly to apply a force to the idler based on a direction of operation of the drive wheel and, depending on the determined direction of operation, and wherein the controller is configured to operate the valve assembly to apply the force to the idler based on the sensed pressure of fluid being directed to the drive wheel.

Claim 13 (Canceled).

14. (Currently Amended) The work machine of claim ~~[[10]]~~ 12, further including ~~a pressure sensor configured to sense the pressure of fluid being directed from the source of pressurized fluid to the drive wheel and~~ a position sensor configured to sense a position of the idler, and

wherein the controller is configured to operate the valve assembly to apply the force to the idler by selecting a recoil curve from a plurality of recoil curves based on the sensed pressure of fluid being directed to the drive wheel and by selecting the force to be applied to the idler based on a point on the selected recoil curve that corresponds to the sensed position of the idler on the selected recoil curve.

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER LLP

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
www.finnegan.com

15. (Currently Amended) The work machine of claim [[10]] 12, wherein the drive wheel is operable to advance the drive track in a first direction that is associated with movement of the work machine in a direction from the drive wheel toward the idler and in a second opposing direction that is associated with movement of the work machine in a direction from the idler toward the drive wheel, and

wherein the controller is configured to operate the valve assembly to apply a first force when the drive wheel is operated in the first direction and a second force when the drive wheel is operated in the second direction, the first force differing from the second force.

16. (Currently Amended) A method of operating a track-type machine having a drive wheel at a first end of the track-type machine and an idler at a second end of the track-type machine, the method comprising:

operating a drive wheel to advance a drive track around the drive wheel and the idler thereby moving the track-type machine, the drive wheel being operable in a first direction associated with movement of the track-type machine in a direction from the drive wheel toward the idler and in a second direction associated with movement of the track-type machine in a direction from the idler toward the drive wheel;

determining a force to be applied to the idler based on a direction of operation of the drive wheel and a sensed position of the idler when the drive wheel is operated in the first direction, and, when the drive wheel is operated in the second direction, based on a direction of operation of the drive wheel, a sensed pressure of fluid being used to operate the drive wheel, and a sensed position of the idler; and applying the force to the idler.

17. (New) The method of claim 3, wherein the force applied to the idler is a function of a drawbar load of the machine.

18. (New) The work machine of claim 12, wherein the force applied to the idler is a function of a drawbar load of the machine.

19. (New) A method of operating a track-type machine having a drive wheel and an idler, the method comprising:

operating the drive wheel to advance a drive track around the drive wheel and the idler thereby moving the track-type machine;

determining a direction of operation of the drive wheel;

determining an amount of recoil of the idler;

determining, when the drive wheel is operated in a first direction, a force to be applied to the idler based on the determined direction of operation of the drive wheel and the amount of recoil of the idler; and

applying the force to the idler.

20. (New) The method of claim 19, further including, when the drive wheel is operated in a second direction opposite the first direction, sensing a pressure of fluid being used to operate the drive wheel,

wherein said force to be applied is determined based on the determined direction of operation of the drive wheel, a sensed pressure of fluid being used to operate the drive wheel, and the amount of recoil of the idler.

21. (New) The method of claim 19, wherein said determining the amount of recoil includes sensing a position of the idler.

22. (New) The method of claim 19, wherein the force applied to the idler is a function of a drawbar load of the machine.

23. (New). The method of claim 19, wherein said applying the force includes operating a valve assembly to control fluid pressure within an actuator associated with the idler.

24. (New) A work machine, comprising:

- a source of pressurized fluid;
- a fluid reservoir;
- a drive track;
- an idler;
- a drive wheel, the drive wheel being operable to advance the drive track around the drive wheel and the idler;
- an actuator mechanically coupled to the idler, the actuator being operable to increase and decrease a force being applied to the idler;
- a valve assembly operable to control fluid flow from the source of pressurized fluid to the actuator and from the actuator to the fluid reservoir; and
- a controller configured to determine a direction of operation of the drive wheel and an amount of recoil of the idler, and to operate the valve assembly, when the drive wheel is operated in a first direction, to apply a force to the idler based on the determined direction of operation of the drive wheel and the amount of recoil of the idler.

25. (New) The work machine of claim 24 further including a pressure sensor configured to sense the pressure of fluid being directed from the source of pressurized fluid to the drive wheel,

wherein, when the drive wheel is operated in a second direction opposite the first direction, said force to be applied is determined based on the determined direction of operation of the drive wheel, a sensed pressure of fluid being used to operate the drive wheel, and the amount of recoil of the idler.

26. (New) The work machine of claim 24, further including a position sensor configured to sense a position of the idler,

wherein the controller determines the amount of recoil of the idler based on a sensed position of the idler.

27. (New) The work machine of claim 24, wherein the force applied to the idler is a function of a drawbar load of the machine.

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER <sup>LLP</sup>

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
[www.finnegan.com](http://www.finnegan.com)